(B. A. I. 177.)

U. S. DEPARTMENT OF AGRICULTURE.

FARMERS' BULLETIN No. 141.

POULTRY RAISING ON THE FARM.

BY

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.

LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF ANIMAL INDUSTRY,
Washington, D. C., September 10, 1900.

SIR: In accordance with your direction, I transmit herewith, for publication as a Farmers' Bulletin, an article on "Poultry raising on the farm," the same being a reprint from the Seventeenth Annual Report of this Bureau, which is now in press. It is believed that the suggestions contained in this bulletin, aided by the 31 illustrations which accompany the text, will be found useful on many farms.

Respectfully,

D. E. SALMON,
Chief of Bureau.

Hon. JAMES WILSON,
Secretary of Agriculture.

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POULTRY RAISING ON THE FARM.

INTRODUCTORY.

The barnyard fowls are regarded by most farmers as a very insignificant part of their live stock; and yet, although so often neglected and forced to shift for themselves, the poultry and egg crop constitutes in the aggregate one of the most important and valuable products of American agriculture. The conditions in this country are such that the poultry industry is capable of indefinite expansion, and therefore able to meet any demands that may be made upon it either by home or foreign markets.

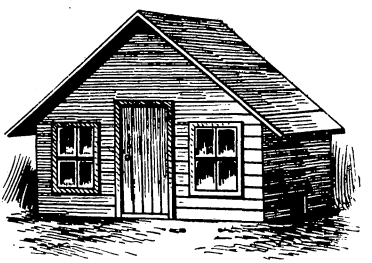

FIG. 1.—Implement house transformed into poultry house.

Importance of high-grade product.—In order to secure a larger consumption of poultry products per capita in the United States, it is of prime importance that there should always be an abundant supply of strictly fresh eggs and of the best grades of table poultry. This condition is also a necessary factor in the development of the export trade. When the markets are filled with eggs which have lost their quality and flavor by long keeping, and many of which have acquired an offensive taste; when the broilers and roasters offered to the consumer are thin, tasteless, tough, and altogether unfit for the table—it is not surprising that they are passed by, and beef, mutton, or pork taken in their stead. So, also, when the exporter is buying for consignment to foreign markets he must be able to find at all times a good article of eggs or poultry in sufficient quantity or he can not continue his trade.

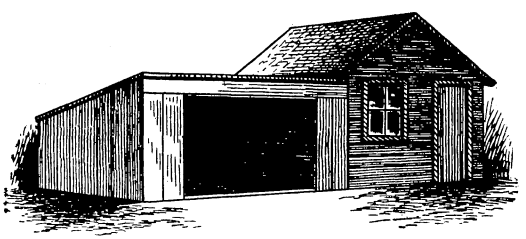

FIG. 2.—Implement house transformed into poultry house

Possibility of increased consumption.—An increased supply of poultry products of the highest class would unquestionably lead to an increased consumption. There is no more staple and popular article of food, and consequently we may confidently expect the demand to develop

in proportion to the increase of our population and to the care and intelligence with which the markets are supplied.

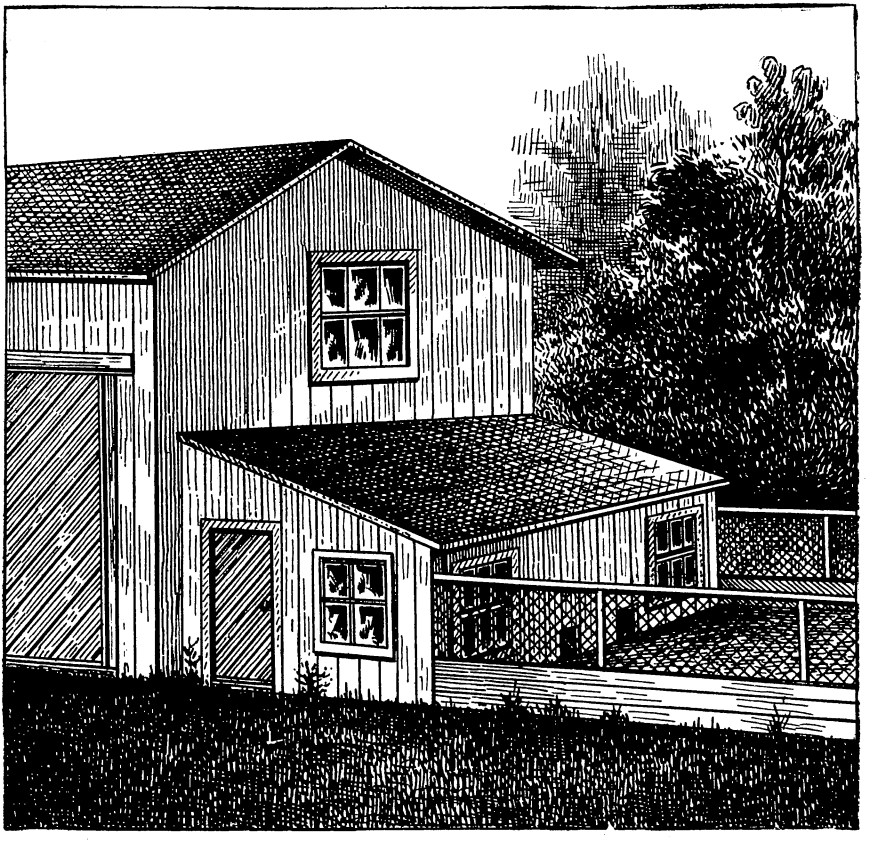

FIG. 3.—A lean-to poultry house.

Increase of product.—There is no stock on the farm that yields a better relative return to the food consumed than do the hens, and consequently it is well worth while to consider in what manner their product may be increased without disproportionately increasing expenses. The fowls must have comfortable and healthful quarters, they must have proper food and nesting facilities, but it is not at all necessary that there should be extravagant expenditures in supplying these.

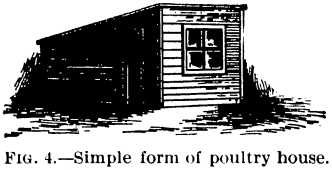

FIG. 4.—Simple form of poultry house.

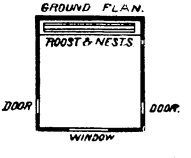

FIG. 5.—Ground plan of simple form of poultry house.

THE KIND OF FOWLS TO KEEP.

The kind of chickens to be kept upon a farm depends almost as much upon the kind of man who manages them as upon any other condition.

There are no birds which stand neglect better than the common, mongrel barnyard fowls, for these have lived and developed under unfavorable conditions and are accustomed to shift for themselves. They are generally hardy, vigorous, and yield a fair return in eggs or as table poultry; they respond fairly well to generous treatment, and, if selected with some care, are by no means to be despised, even when their product is compared with that of the standard breeds.

FIG. 6.—Poultry house with scratching shed.

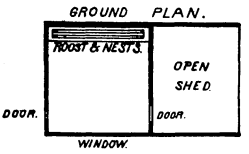

FIG. 7.—Ground plan of poultry house with scratching shed.

IMPROVEMENT OF BREEDS.

The improvement of the common poultry should begin in most cases by breeding from birds selected for their shape, size, and productiveness, and by bettering the conditions of life under which they are kept. If the owner is willing to go a little further and to bestow somewhat more attention upon his birds, he may cross them with males of a standard breed, or replace them entirely by purebred males and females.

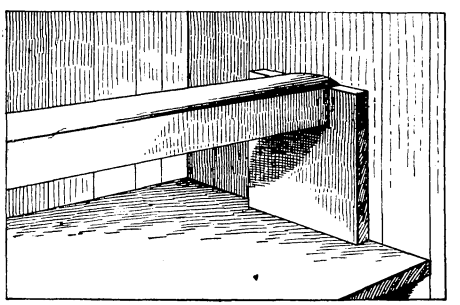

FIG. 8.—Construction of roosts.

CARE OF FOWLS.

The standard breeds have been brought to a higher plane of development by extra care and more skillful management, and if they are to maintain this improvement they must be continued under the conditions which brought it about. They suffer more from neglect and unhealthful surroundings than do the common fowls, because less accustomed to these conditions. The standard breeds, for these reasons, may not always give satisfaction, if their characteristics and requirements are not understood. If, however, the highest returns are expected which care and skillful management can obtain, then a breed of fowls should be adopted which has been bred for generations with this object in view.

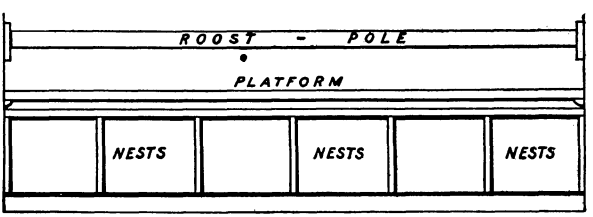

FIG. 9.—Sectional view of platform and nests.

POPULAR VARIETIES.

The most popular fowls in the United States are the American breeds known as the Plymouth Rocks and Wyandottes. They are of medium size, good as broilers, good as roasters, good egg producers; the hens are good sitters and good mothers, and for these reasons they are known as general-purpose fowls. In the Barred, Buff, and White Plymouth Rocks, and the White, Buff, Silver, Golden, Black, and Partridge Wyandottes, there is a sufficient range of color to meet almost any taste.

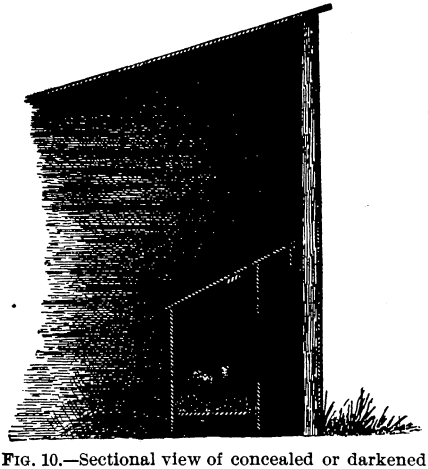

FIG. 10.—Sectional view of concealed or darkened nest.

EGG PRODUCTION.

For farmers who desire fowls more particularly for egg production, the Mediterranean breeds, particularly the Leghorns, Minorcas, and Spanish, are to be recommended. The birds of these breeds are smaller, more active, and greater foragers than the Rocks or Wyandottes, and as layers they are unsurpassed. Should it be desirable, on the other hand, to raise heavier birds than the Plymouth Rocks, we should naturally turn to the Asiatic breeds, which include the Brahmas, Cochins, and Langshans.

WEIGHTS.

The standard weights of these different classes are as follows:

Breeds.	Cocks.	Hens.
	Pounds.	*Pounds.*
Plymouth Rocks	9½	7½
Wyandottes	8½	6½
Light Brahmas	12	9½
Dark Brahmas	11	8½
Cochins	10½ to 11	8½
Langshans	10	7
Minorcas	8	6½
Spanish	8	6½

The Leghorns are smaller than the Minorcas and Spanish and have not been given standard weights.

The Rhode Island Red is a promising general-purpose breed, resembling in size and form the Plymouth Rock. It has been developed by crossing and selection, but has not yet been admitted as a standard breed.

SELECTION OF STOCK FOR BREEDING.

Having in mind the size and peculiarities of the varieties of fowls to which reference has been made, it would appear to be a not difficult matter to select one which would satisfy the requirements of any farm. In purchasing breeding stock it is important to purchase from reliable

breeders only, and to ascertain that the stock is in healthy condition and that it has been bred for early maturity, size, shape, and egg-producing qualities rather than for perfection of feathering. For the show room the feathering can not be neglected, as the judges often place it ahead of all other features of the bird's make-up; but for the farm the color and marking of feathers must be held subordinate to the utilitarian qualities. The feathers should not, however, be entirely neglected, as their perfection is an indication of the purity of blood and carefulness of breeding.

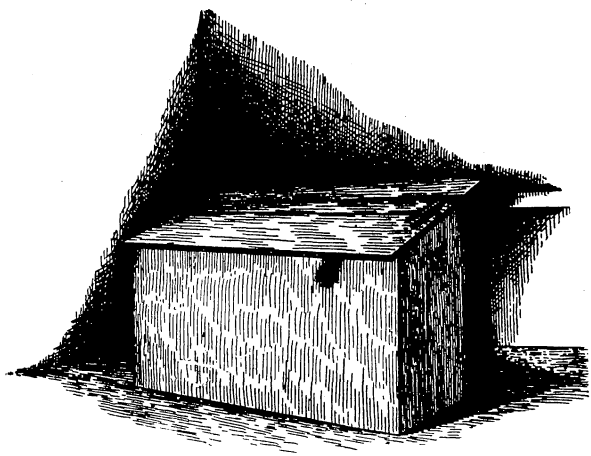

FIG. 11.—Concealed or darkened nest.

POULTRY HOUSES.

It is very desirable that poultry should be provided with a house somewhat separated from the other farm buildings, but near enough to the barnyard so that they can spend a part of their time in scratching for and gathering up the many seeds and grains which otherwise would not be utilized. On farms where no poultry house is provided the hens are compelled to seek roosting places wherever they can find them—sometimes in fruit trees, sometimes on feed racks, sometimes on the farm machinery, or even the wagons and carriages. The result is not only untidiness, but fruit, feed, implements, and wagons are soiled and injured by the droppings, and sometimes vermin swarm in the roosting places to such a degree that the hens are voted a nuisance rather than a desirable part of the farm stock. If these vermin-infested places are near the horse stable, the mites may attack the horses, causing itching and a mangy condition of the skin, the origin of which is not always suspected.

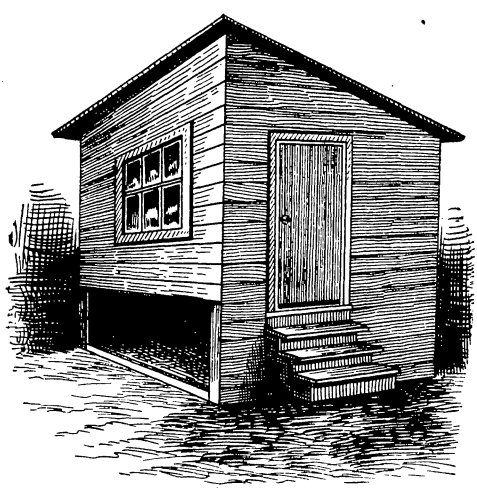

FIG. 12.—Scratching room under poultry house.

PREFERABLE CONDITIONS.

Poultry houses need not be elaborate in their fittings or expensive in construction. There are certain conditions, however, which should be insisted upon in all cases. In the first place, the house should be located upon soil which is well drained and dry. A gravelly knoll is best, but, failing this, the site should be raised by the use of the plow and scraper until there is a gentle slope in all directions sufficient to prevent any standing water even at the wettest times. A few inches of sand or gravel on the surface will be very useful in preventing the formation of mud. If the house is sheltered from the north and northwest winds by a group of evergreens, this will be a decided advantage in the colder parts of the country.

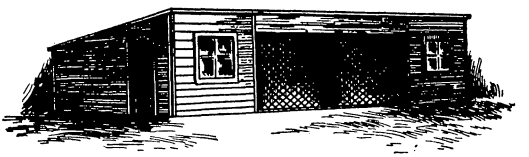

FIG. 13.—Double poultry house with scratching sheds.

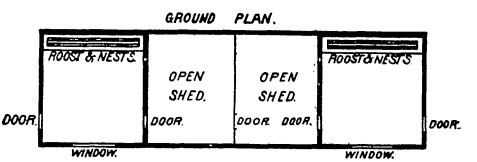

FIG. 14.—Ground plan of double poultry house with scratching sheds.

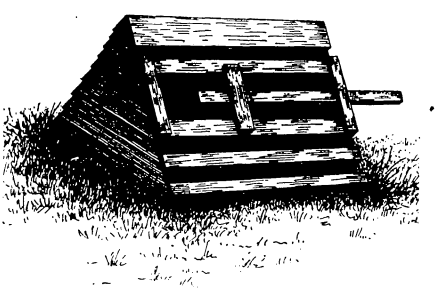

FIG. 15.—Common A-shaped coop with sliding slat.

UNUSED BUILDINGS.

Sometimes there is already a small building on the farm which has been used for implements or animals and which is no longer required for these purposes. Such a building may be easily fitted for poultry by cutting a small door in one side and placing roosts and nests in the interior. (Figs. 1 and 2.)

INEXPENSIVE STRUCTURES.

In case there is no building suitable for remodeling into a poultry house, an inexpensive lean-to may be built (fig. 3), or a new building constructed. A house for this purpose should be planned with a view to simplicity, economy, and convenience, while supplying the conditions proper for successful poultry keeping.

One of the simplest forms of poultry house is shown in fig. 4, and ground plan of the same in fig. 5. A scratching shed may be attached to the side of this house, as in figs. 6 and 7, which, if desired, may be inclosed in front with poultry wire, so as to keep the birds confined.

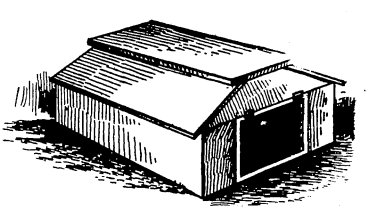

FIG. 16.—A common form of chicken coop.

FITTINGS.

Roosts.—The details of construction of roosts are seen in fig. 8. The important points are a nearly flat or slightly rounded surface on the upper side and as few cracks and crevices as possible in which vermin may hide. The roosts may be made of 2 by 3 inch scantling and should be so put in that they can easily be removed at any time for cleaning and disinfection. A platform is often placed under the roosts to catch the droppings and the nests are placed under this platform. In a house, such as fig. 9, the manure platform may be dispensed with and the nest boxes placed along the front or sides of the building.

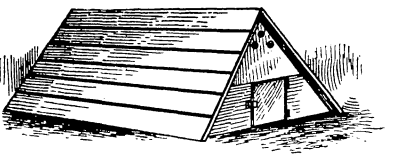

FIG. 17.—A common form of chicken coop.

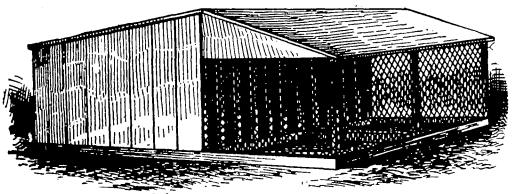

FIG. 18.—Chicken coop with inclosed and covered run.

Nests.—The simplest form of nest is a box placed upon the floor of the poultry house. With heavy fowls, which are apt to break their eggs in fighting away other hens that try to enter their nests when they are laying and thus acquire the habit of egg-eating, a more concealed or dark nest may be necessary. (Figs. 10 and 11.)

Floor.—One of the most troublesome parts of a poultry house to make satisfactory is the floor. Many use earth floors, but these are often damp, especially in cool weather, and then induce rheumatism, colds, roup, digestive disorders, and various other diseases. Some have put in cement floors, but have found these cold and also more or less damp. Probably a good cement floor, laid on broken stone and covered with a few inches of earth, would be satisfactory, if not too expensive. A board floor, six or eight inches above the earth, with good ventilation under it, is dry but too cold, except in the South. A double flooring, laid tightly with building paper between, or a good single flooring covered with a few inches of dry earth, is probably the best. In all cases of board floors there should be sufficient space beneath for ventilation and to guard against the lodgment of rats.

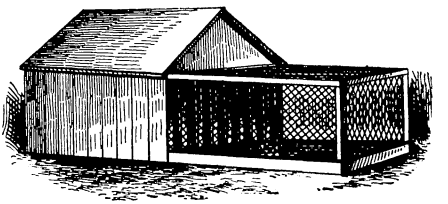

FIG. 19.—Chicken coop with inclosed run.

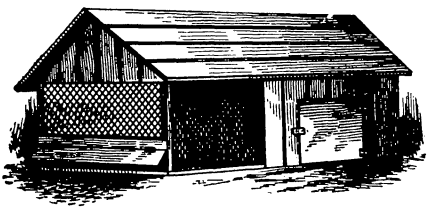

FIG. 20.—Chicken coop with inclosed and covered run.

Good plans.—A good style of poultry house, with scratching room under it, is shown in fig. 12. In case more than one flock is to be kept, the plan shown in figs. 13 and 14 have been found satisfactory and may be multiplied to any extent by adding to the ends. With such houses there may be fenced runs at the back or front, or on both sides, so that the birds may be kept confined.

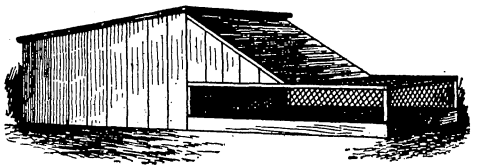

FIG. 21.—Chicken coop with inclosed and partly covered run.

SPACE TO BE ALLOWED.

The amount of space to be allowed for each bird depends upon the size of the birds, whether a shed is attached to the house or whether the fowls have a free run of the open fields. For birds in confinement there should be from 6 to 15 square feet for each adult bird in case there is no shed attached to the house; and with a shed this space may be reduced about one-half. The yards should be large enough to allow exercise in the open air, and to furnish more grass than the birds will eat. This will vary from 60 to 150 square feet per adult bird. The open shed facing the south, where the birds can be induced to hunt for their food and take exercise in all seasons of the year, and where they can enjoy the pleasure of scratching and dusting themselves in the sunshine, even during the winter months, is of great assistance in maintaining the health and productiveness of the flock. The roosting space allowed should be 6 to 8 inches for the smaller breeds, 8 to 10 inches for the medium breeds, and 10 to 12 inches for the larger breeds.

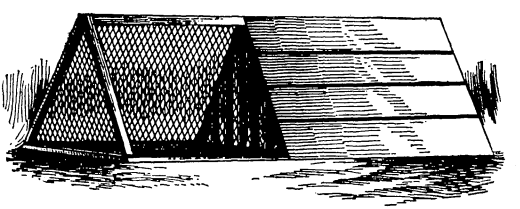

FIG. 22.—Chicken coop with inclosed run.

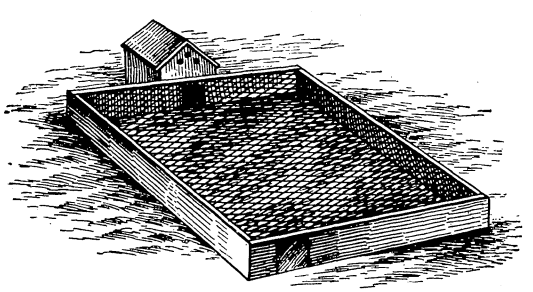

FIG. 23.—Chicken coop with large and inclosed hawk-proof and cat-proof run.

VENTILATION.

Poultry houses should be well ventilated, but so arranged that drafts of air will not strike the birds. Windows and doors should be provided in such locations that the sun may shine into the building

a considerable part of the day. Sunshine is required both to keep the houses dry and to destroy various forms of infection.

POULTRY COOPS.

A liberal supply of coops should be provided for the confinement of hens with broods of small chicks, and for those hens which insist upon

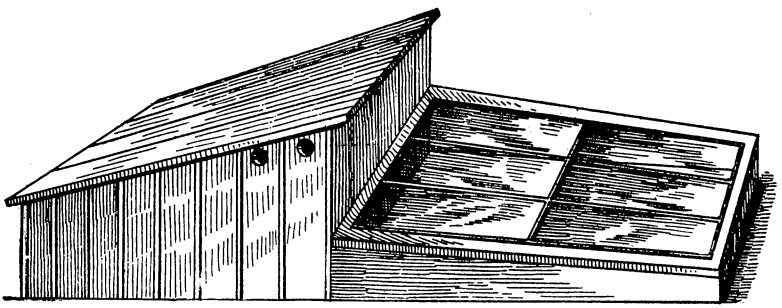

FIG. 24.—Coop with glass-covered run.

sitting at inconvenient times. A few days in solitary retirement will usually break up the desire to sit, and the hen will soon after resume laying.

The common A-shaped coop is one of the most easily constructed and convenient forms in use. The one disadvantage connected with it is the difficulty of removing the feeding and drinking vessels for cleaning or of catching a bird in it without danger of some of the birds escaping. To obviate this, one of the slats may be made to slide, as shown in fig. 15. The opening made by sliding this slat is sufficient to admit the hand and arm so that any part of the coop may be reached without leaving an avenue of escape unguarded. Other forms of coops for the same purpose are illustrated by figs. 16, 17, 18, 19, 20, 21, 22, and 23. For early hatched chicks, which come out when the atmospheric temperature is so low as to be injurious to them, a combination of coop and glass-covered run, as shown in fig. 24, has been found very useful.

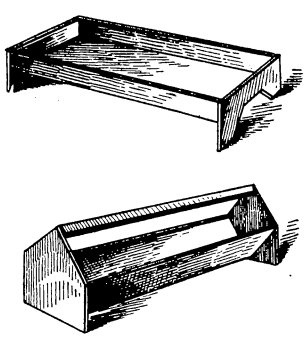

FIG. 25.—Two forms of feed troughs.

FEED TROUGHS AND DRINKING FOUNTAINS.

Two forms of feed troughs are represented in fig. 25. For small chicks the troughs must be very shallow, or for the first few days the feed may be placed upon a square piece of board. Numerous forms of drinking fountains have been devised, some of which are represented in figs. 26 and 27. A good fountain is easily made by cutting a small aperture in a tin can, as shown in fig. 28, filling the can with water, covering with a shallow pan or vessel of any kind, and then

inverting the whole. The shallow vessel will remain filled with water as high as the top of the aperture until the can is exhausted. It is important that fresh pure water should always be accessible to fowls, and the drinking fountains should be cleaned and filled two or three times a day, if possible, and under no circumstances less frequently than once a day.

FIG. 26.—A form of drinking fountain.

RANGING OF FOWLS.

Poultry may be raised with the greatest economy on the large farms of the country, where there is unlimited range, an exhaustless supply of insects and worms, and an abundance of seeds and grains going to waste which poultry alone can utilize. Under such circumstances fowls take care of themselves so well and are so energetic in seeking their food that they are either forgotten and allowed to shift for themselves when they really need attention and assistance, or they are regarded as a nuisance because they sometimes do a little damage. When fenced away from the gardens and flower beds, fowls do little damage and cause scarcely any annoyance on a farm. On the other hand, they do an immense amount of good in the protection of crops by the destruction of injurious insects, larvæ, and worms.

FIG. 27.—A form of drinking fountain.

COLONIES.

Sometimes it is advisable to divide the farm flock into colonies and place these at different points upon the farm in order to secure additional range, to remove the birds temporarily to a distance from certain crops, or for other purposes. In this case cheap, light, and easily handled colony houses (figs. 29, 30, and 31) may be constructed and placed where the fowls are desired to range. After being confined in these houses a few nights the birds will adopt them as their habitations and return to them.

POULTRY IN COMBINATION WITH SPECIALTIES IN FARMING.

There are certain special lines of agricultural operations with which poultry raising may be advantageously connected. In dairying there is usually a large quantity of skim milk or buttermilk which may be utilized to furnish a considerable part of the poultry ration. There is also much food to be gathered by the fowls about the stables, manure piles, and pastures which would otherwise go to waste.

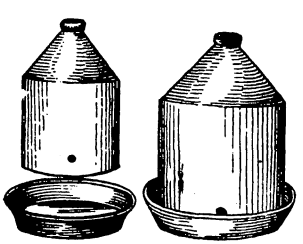

FIG. 28.—A drinking fountain made of a can.

ADVANTAGES ON FRUIT FARMS.

Upon the fruit farm fowls are also of advantage. They keep down the insect pests, and they may have a free range the greater part of the season without the possibility of doing any damage. Plum growers have

found poultry especially helpful in keeping down the curculio, and even apples have been considerably benefited. If small fruits are injured, they may, of course, be protected by confining the fowls for the limited season when the fruit is ripening. The waste fruits, either in winter or summer, are a welcome and valuable addition to the poultry ration.

POULTRY AND THE MARKET GARDEN.

The market garden also furnishes a large amount of waste products which may be utilized for poultry feed. There is the waste lettuce, the small heads of cabbage, the unsold beets, carrots, and potatoes, the

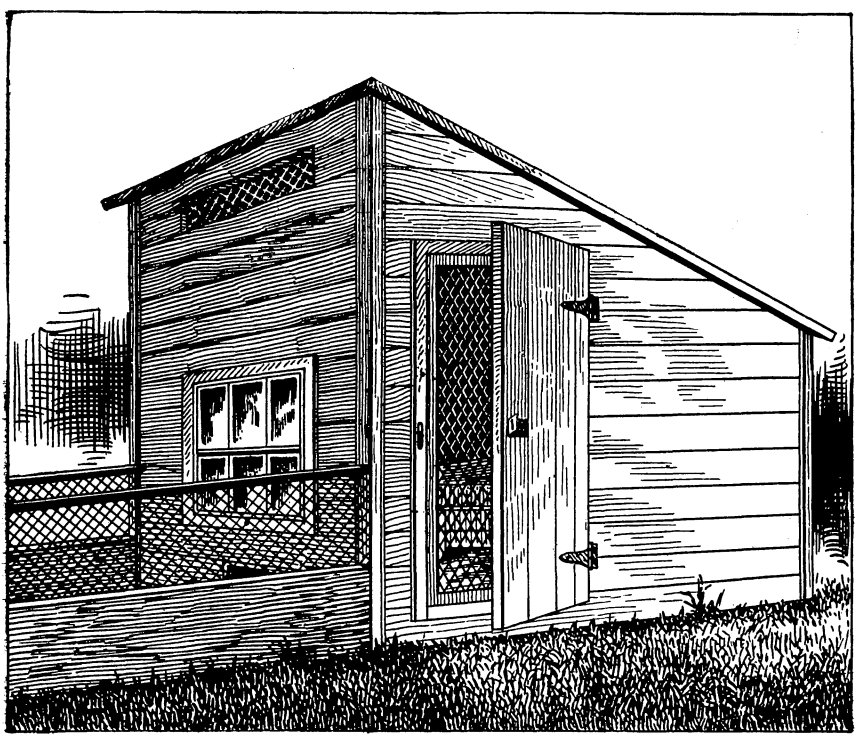

FIG. 29.—Colony house.

peas, and corn which can not be marketed for any reason, the waste of the small fruits, etc. If properly cared for, the hens will bring a steady and reliable income during the winter months. Dried clover and other green feed, roots, and tubers should be saved for them during the summer. These should be steamed and fed with the mash, or cabbages and beets may be fed raw. A catch crop of buckwheat or oats and peas will furnish much food at little expense. Bran, meat, meal, wheat screenings, and oats purchased for poultry will bring good returns in eggs and will also add materially to the fertilizer supply.

OPPORTUNITIES AFFORDED BY THE DAIRY.

Dairymen who have town or city milk routes, and market gardeners who retail their produce, have exceptional opportunities for marketing fresh eggs and poultry at the highest prices. They become well acquainted with many of their customers by their daily visits, and they are looked upon as a direct channel of communication between

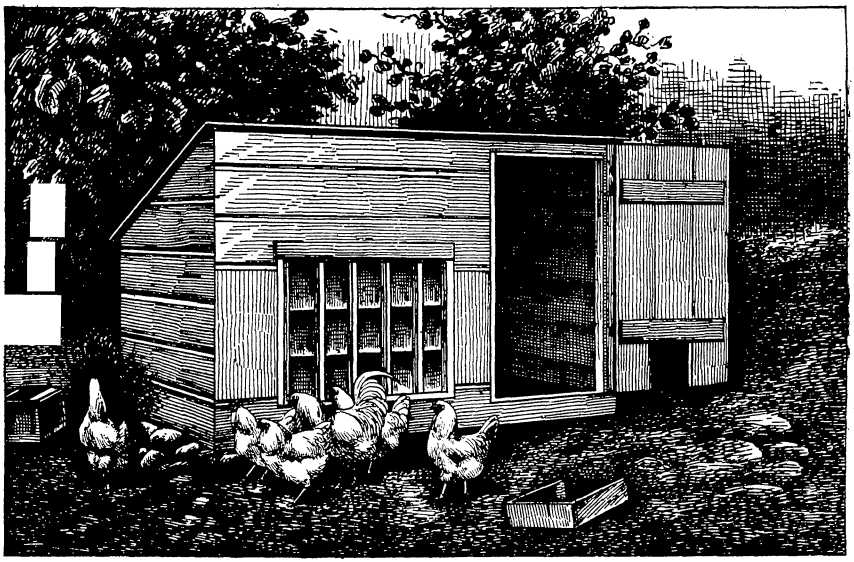

FIG. 30.—Colony house.

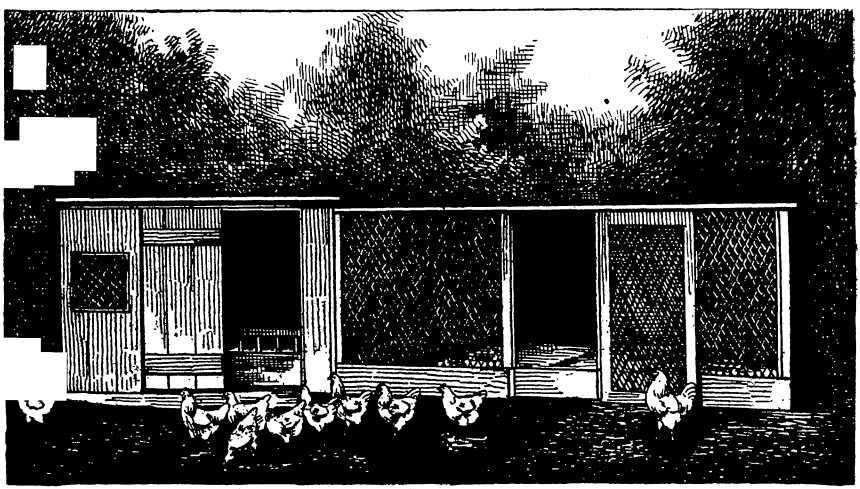

FIG. 31.—Colony house.

the country and the city. They should by all means make the most of this advantage, for any class of agricultural producers who can reach the consumer without the intervention of the middleman is indeed fortunate.

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